all on the same train, but heading in different directions

Risk attitudes among insurance company management and implications for forming a Risk Culture

by **Alice** Underwood, **Michael** Thompson & **David** Ingram

abstract

Insurance company managers are surveyed to discern their alignment with four risk attitudes predicted by Plural Rationality Theory. Each company management team is shown to contain a mix of beliefs, but not always the same mix. Since each belief is tied to a different expectation for appropriate risk management, there are inherent conflicts with a risk management culture that is tied to a single belief. The paper concludes with descriptions of hybrid risk management cultures that would have some appeal to various pairs of the four beliefs.

what culture is not

Many discussions of ERM include Risk Culture as one important component of a successful ERM program. But in some cases, Risk Culture is no more than a term of art to suggest a particular set of behaviours accompanied by risk management mission and vision statements. For this discussion, the authors will assume that the term refers to how things are seen, done and justified at the various levels of the business. That assumption causes us to rule some things out. So, we will start with a statement of what the term "culture" does not mean in this paper.

Culture is not the explanation of last resort

Sometimes "culture" is dragged in only when other explanations – economic, demographic, organisational and so on – are inadequate: explanations of the kind "Oh well, it must be cultural then."

- Evident corporate shortcomings associated with the recent financial crisis are often put down to "culture"; hence all the talk about the need for a "change of culture."

- This line of reasoning has also blossomed, in recent years, in the study of international relations: the "world society" literature, for instance, holds that a set of "Western/modern" norms have gained global legitimacy, even in regions where it doesn't make "objective economic sense" to adhere to those values.

Culture is not a veto on comparison

In understanding Risk Culture, it is not useful to assume that each culture is unique and can only be understood in its own terms (as expressed in anthropologist Clifford Geertz's notion of thick description[1]). For instance, if one ventures a generalization such as that human societies share the notion of up-and-down, some anthropologist shouts "Not in my tribe!" In recent years, this "hermeneutic" or "post-structural view" has taken the social sciences by storm. But as Harry Eckstein observed[2], in the absence of any attempts to test and compare, thick descriptions are just "very high level travel literature."

Culture is not the uncaused cause

This paradigm explains "why did he do that?" with "because his culture told him to."

- Pointing to "Asian values" is an example of this solecism.
- So too is the "culture wars" thesis (e.g. Samuel Huntingdon) in which the culture-carriers – the members of the various blocs: Islamic, Christian and so on – are pitted against one another because they are Islamic, Christian etc.
- Likewise with the various proponents of organisational culture – Hofstede, Hampden-Turner, Trompenaars – who are so heavily relied-upon in much of the work on Risk Culture.

Though often dressed up in impressive swathes of reasoning, and bolstered by extensive statistics, all these are not explanations - just elaborate ways of saying "I don't know."

what culture is

The authors have worked together for almost five years developing articles and papers that describe a view of Risk Culture using an adaptation of the work originated by Mary Douglas that is now called Plural Rationality Theory[3]. This framework for discussion of culture relies on two independent and measurable dimensions - hierarchy and attachment - which result in four quadrants, linked to four different views of risk in the world and four fundamental types of Risk Cultures.

- Low hierarchy, high attachment: **Conservator** culture sees the world as dangerously risky, requiring a very careful approach to risk taking, and often seeks to minimize risk.

1 / Geertz contrasts a factual observation of a man winking with a "thick description" that puts the wink into the context of the culture: e.g. "rapidly contracting his right eyelid" vs. "practicing a burlesque of a friend faking a wink to deceive an innocent into thinking conspiracy is in motion." Geertz, Clifford. "Thick Description: Toward an Interpretative Theory of Culture." In The Interpretation of Cultures. New York: Basic Books (1973)

2 / R. Ellis, M. Thompson. **Culture Matters**. Westview Press (1997)

3 / The most complete exposition of this work, a compilation of six articles published over four years and titled "Rational Adaptation for ERM in a Changing Environment," was recently published by **InsuranceERM**, at www.insuranceerm.com.

- High hierarchy, high attachment: **Manager** culture sees the world as moderately risky, and risk as something that can be tamed. This culture most closely aligns with the ideas usually put forward as ERM.

- Low hierarchy, low attachment: **Maximizer** culture expects any losses to be recoverable from subsequent gains, and accepts risks when compensation (price) is right.

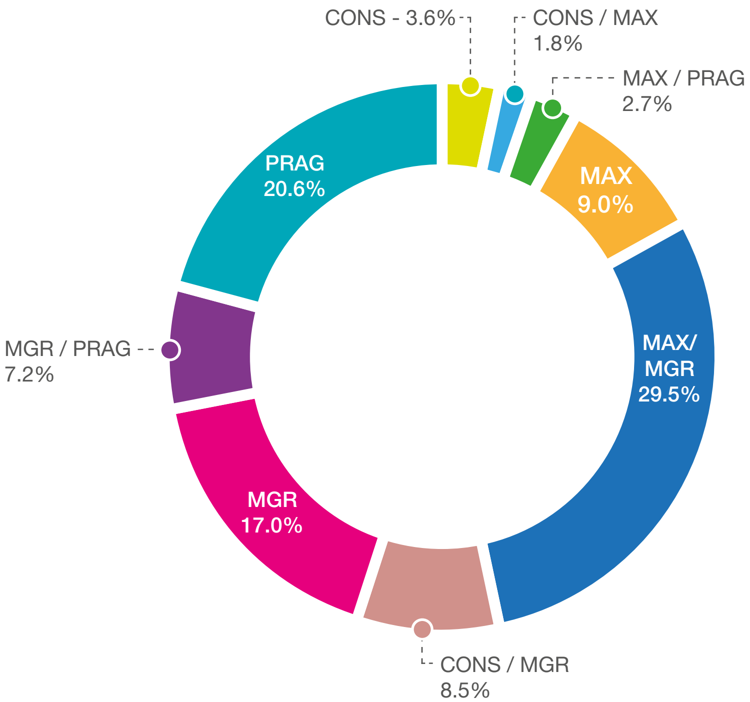
- High hierarchy, low attachment: **Pragmatist** culture sees unpredictability in the world, and often chooses to avoid commitments and over-concentration in any one type of risk.

Traditional ERM tends to tacitly assume that risk management is "best" when a single Risk Culture – the Manager culture – is universally adopted. But each of the four Risk Cultures can be found within most companies - and, as will be shown in the next section, within most management teams.

survey of risk attitudes

Karl Dake developed a survey of risk attitudes in the 1990s and used it as part of a massive research into consumer attitudes[4]. Dake's survey was adapted by Ingram to take the questions from the household domain into the business setting. To date, about 200 insurance executives from eleven companies in the insurance sector have completed the survey. Each person's survey results provide a score between -10 and +10 for each Risk Culture. A score of 5 or above indicates a preference for that Risk Culture; a score of -5 or lower indicates active disagreement. Chart 1 illustrates that individual responses fall into 9 groups.

Chart 1: Distribution of risk preferences for 200 individual survey respondents



About half showed a clear preference for one and only one of the four cultures. The other half gave answers that indicated agreement with two of the four cultures.

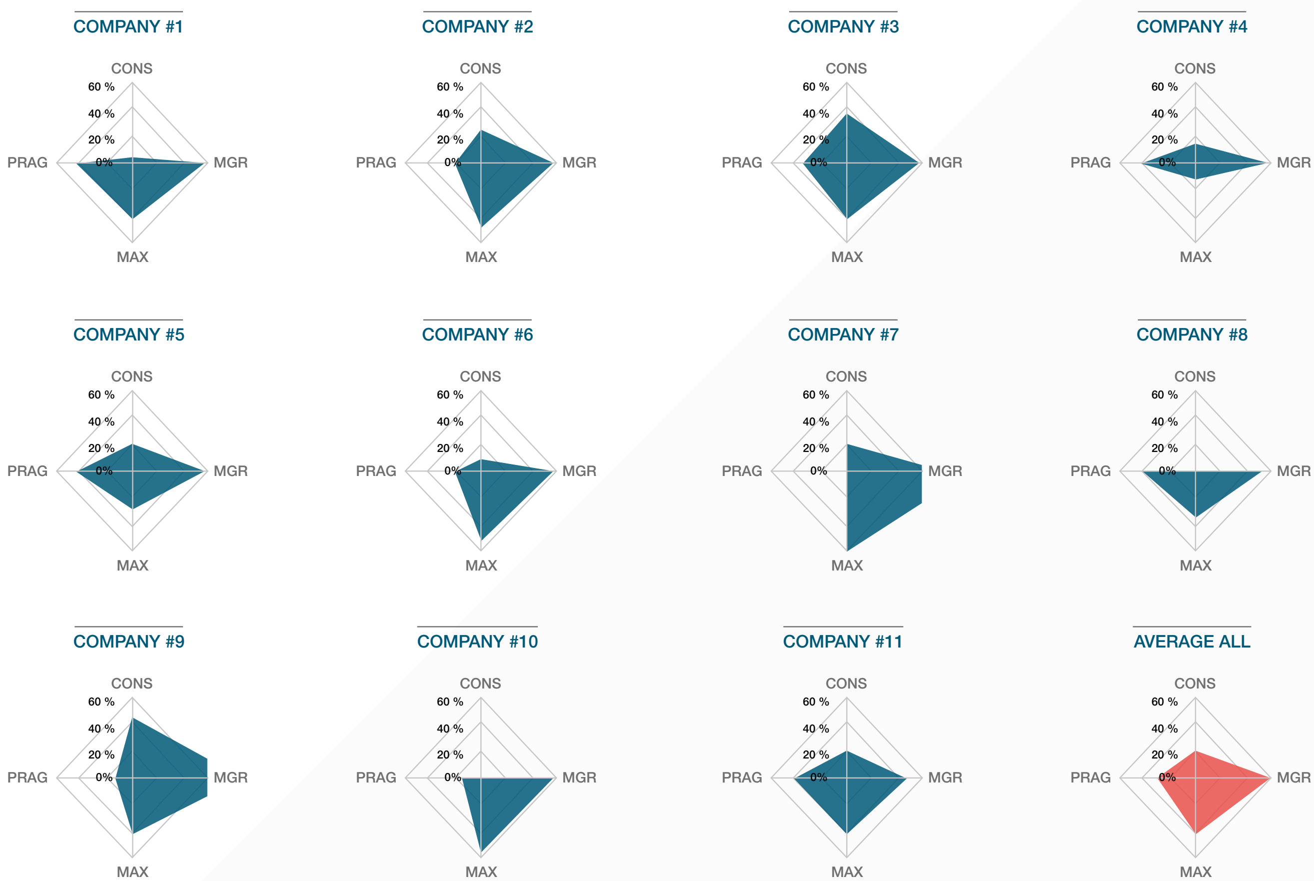
This chart indicates that ERM in its "purest" form would only really appeal to the 17% of respondents who indicated a preference for the pure Manager culture. However, another 45% of the responses (MGR/PRAG, CONS/MGR and MAX/MGR) showed some leaning towards the Manager culture. This suggests that a form of ERM based on the Maximizer/Manager blended Risk Culture would get the widest support, aligning directly with 29.6% and at least partly with approximately 75%.

Many Chief Risk Officers describe their job and the objectives of their risk management programs as involving collaboration with the business units in support of profitable risk taking, rather than focussing solely upon the negative aspects of risk. In fact, a large segment of risk managers advocate redefining the word "risk" to include favourable as well as unfavourable variations in outcomes. Apparently they are seeking to find aspects of the Maximizer culture to merge into the Manager dominated ERM structure. These risk managers have empirically reached the same conclusion as the survey indicated: that they will gain the widest acceptance for a risk management program that is a Maximizer / Manager blend.

In order to be effective, a risk management program must be more than "lip service" to an otherwise ignored standard[5]. In other words, for true effectiveness ERM must align with corporate culture. is, then, a Maximizer/Manager ERM the "best" sort of ERM?

Not necessarily. To varying degrees, the predominant risk preference differs from company to company. The following charts show survey results for each of the eleven companies separately.

Chart 2: Average risk preference by company



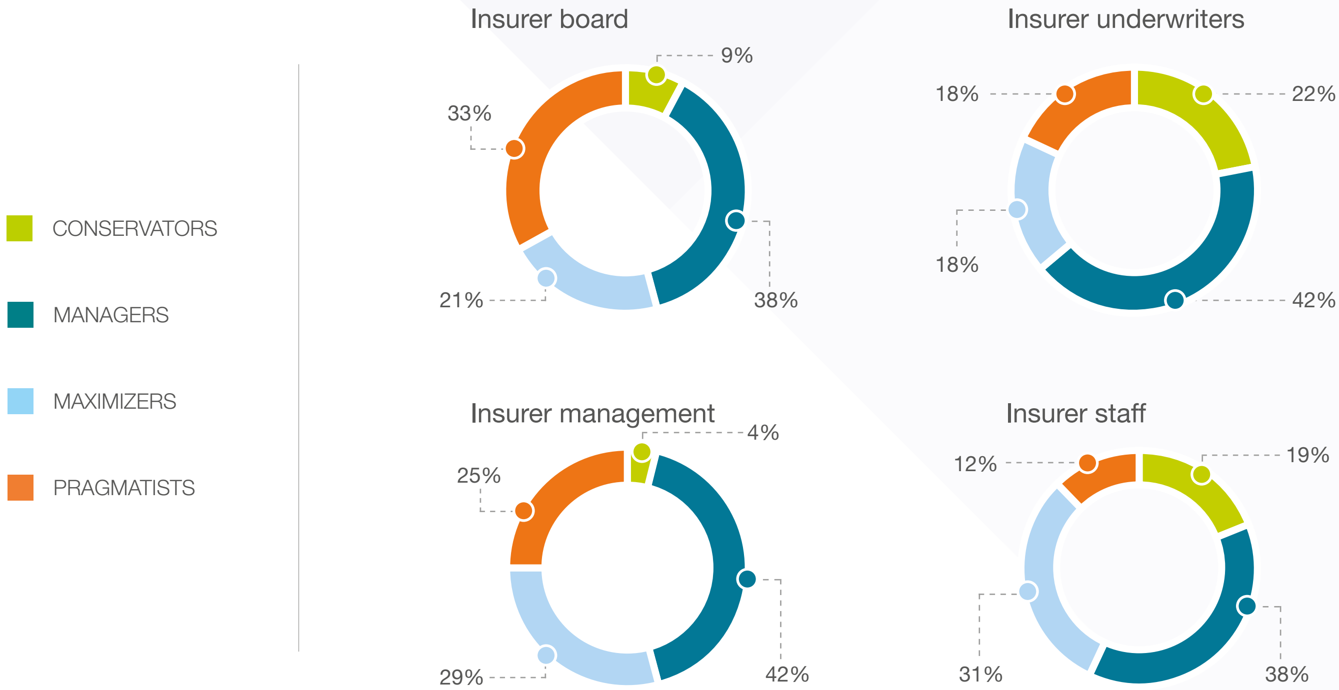
4 / See K. Dake and M. Thompson, "Making ends meet, in the household and on the planet." **GeoJournal** 47: 417-424 (1999)

5 / See D. Ingram, "A Giant Risk Management Entertainment System." **WillisWire** (2013)

Different shapes indicate different cultural preferences at each company. Companies 3 and 11 have preferences that are very much like the overall average, but the other nine companies vary significantly. Companies 7 and 9 each show very high agreement with the Manager culture and might do well with the "pure" ERM approach. Companies 1, 4, 5, and 11 had significant minorities favouring the Pragmatist culture. Companies 3 and 9 have the highest fraction of people favouring the Conservator culture.

Another layer to this puzzle of culture is the issue of ***who*** in the company favoured each culture. The results differed somewhat by type of position (Chart 3).

Chart 3: Average risk preference by type of position held



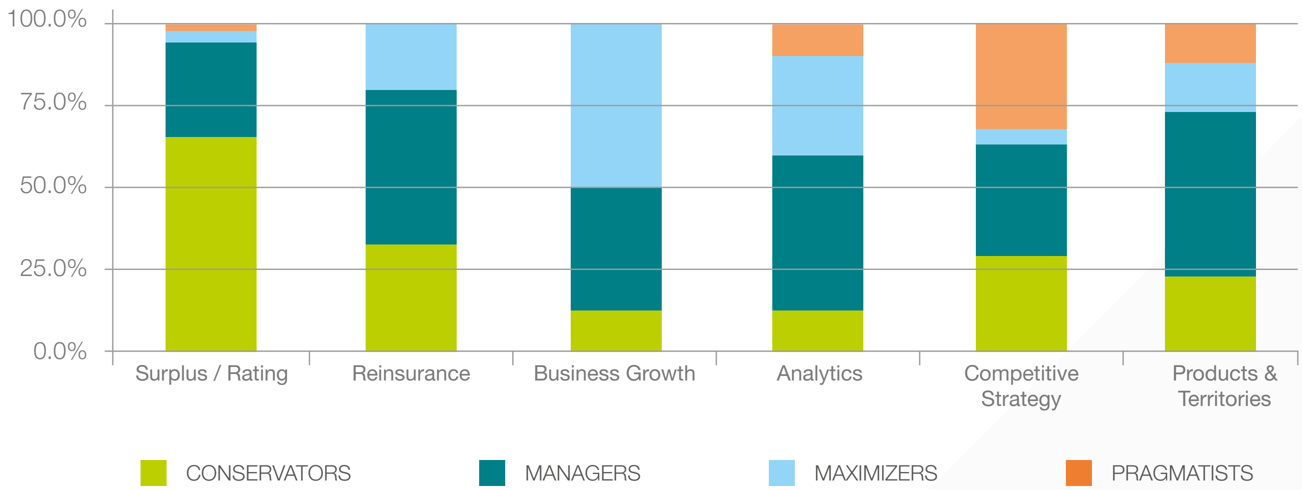
Of the four groups, top management contains the highest percentage of Maximizers and the lowest percentage of Conservators. When survey results were presented to one management team and it was pointed out that no one in the group favoured the Conservator culture, their response was "That would be [Joe]; he retired last year and our meetings have had many fewer arguments since then."

Board members surveyed had slightly fewer Maximizers and slightly more Conservators. That they would have somewhat less appetite for risk than top management is probably appropriate and desirable given their respective roles, but the lack of dramatic differences makes sense seeing that board members are usually top managers somewhere else. Underwriters and middle management, on the other hand, showed a much higher concentration of Conservators. This is clear evidence that the top management ideology that populates mission statements and vision statements may not be shared with the middle management at a fundamental cultural level. A significant slice of middle management may well see top management's ideology as too aggressive.

perceptions of corporate risk approach

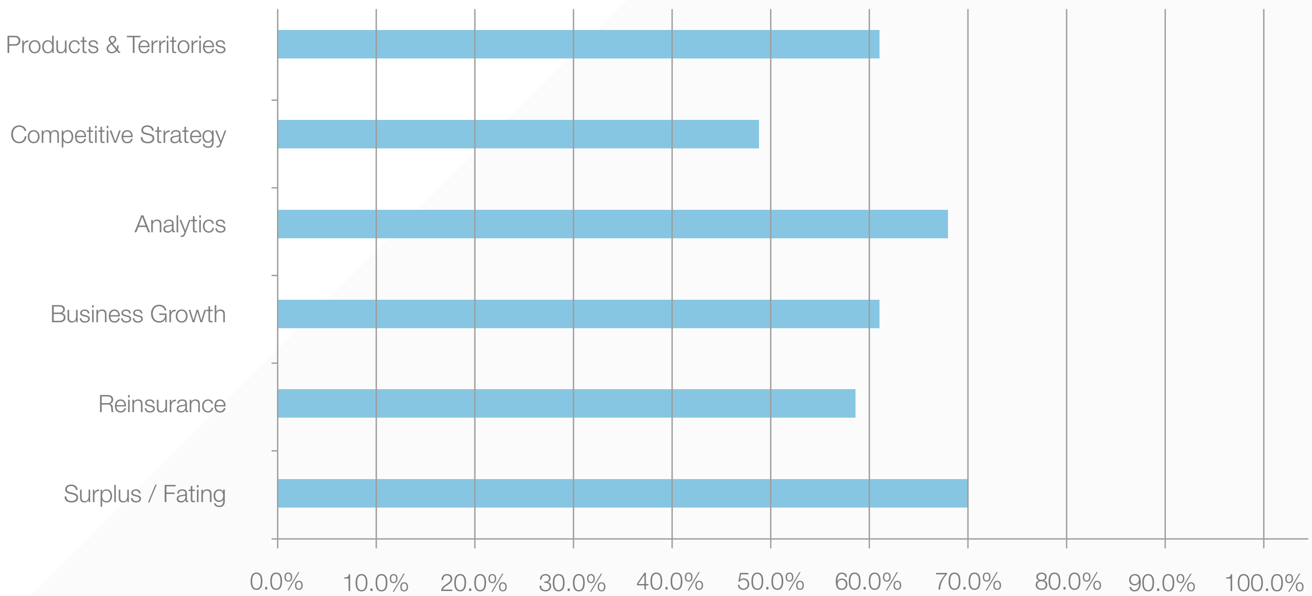
For seven of the eleven companies surveyed for risk preferences, there were six additional questions about the management strategy applied for specific areas of risk. The possible answers were designed to reference one or another of the four Risk Cultures. The strategies of fourteen additional companies were assessed by Willis Re staff; Chart 4 shows the percentages of these 21 insurers that had a strategy tied to the approach favoured by one or another of the four Risk Cultures for managing a particular risk area.

Chart 4: Percentage distribution of perceived company strategy by risk area for 21 insurers



Within the seven companies where we had data by individual, we found that there was limited agreement about what the actual strategy was for their company (Chart 5).

Chart 5: Average level of agreement on company strategy among seven management groups



This confusion (less than 70% agreement) might be an indication of poor communication among company management, but a separate study of eight insurers' approach to five major categories of risk indicated that insurers actually do employ two or more of the distinct risk management strategies that would be preferred by one Risk Culture or another[6]. Only two of these eight insurers favoured the same strategy for all four risk types as well as for enterprise-level risks; one had a Conservator strategy for all, and the other had a Pragmatist strategy for all (Pragmatist strategy often includes a variety of approaches for managing risks). Two of the other six insurers used two distinct risk management strategies, and four used three strategies. Both of the two-strategy firms used a Manager approach for some risks and a Pragmatist approach for others. Of the four three-strategy firms, two used Manager, Conservator and Pragmatist; the other two used Maximizer and Manager, one with Pragmatist and the other with Conservator.

The senior risk officer of one firm divided up the firm's risks by the variations in risk strategy:

- Natural Catastrophe Risk is managed primarily through diversification of exposures by type of natural catastrophe (earthquake, hurricanes and other high wind events and floods) and by diversification of locations – a Pragmatist strategy.

- Other Insurance Risks follow a Maximizer strategy: they work hard to make sure that they sell the insurance at the right price, and risk is of low concern.

- Operational Risk is managed with a purely Conservator strategy: the company is not paid for taking these risks, so they want no more risk of loss than absolutely necessary. They choose operational risk controls based upon cost/benefit.

- Management of Credit and Investment Risk splits into two regimes: — Long-term asset allocation goals are set with an efficient frontier Manager approach. — Tactical variations on the strategic asset allocation goals are based on short-term market outlook: a Maximizer approach.

6 / Unpublished study to be presented at ICA 2014 in Washington DC.

7 / See the article "ERM: Four Ways to do God's Work" in "Rational Adaptation for ERM in a Changing Environment," **InsuranceERM** (2013)

risk cultures

The four risk preferences can be aligned with four risk management strategies[7]. But, applying the idea of Plural Rationality, many other aspects of Risk Culture emerge. The following table gives a brief outline of some aspects of the four cultures. As mentioned several times, the Manager culture is a fairly tight match with "textbook" ERM Risk Culture.

PRAGMATIST	MANAGER
To moderate the risk profile, insurer seeks to undertake a broad range of activities whose risks are unrelated, and maintain an appropriate balance among activities; the key limit in this risk management system is the concentration limit	Top-down risk management process uses an economic capital model as key reference point for risk; the key limit applied is the amount of economic capital each activity generates
Constantly monitor major risks, staying alert for any change that would skew the spread of risk	ERM systems often used to optimize the risk portfolio by calculating the best opportunities
Periodic rebalancing of investments is a diversification strategy	ERM integrated with planning cycle will include capital budgeting process, incorporating capital requirements and expected return on capital for planned future business
No fixed expectation for surplus level, rating, business growth or usage of reinsurance	Expect their business to grow at about the same rate as the market in general
Little reliance on models and analytics	Incentive system tied to risk-adjusted financial results
Approach to competition varies from year to year and by situation	Expect to hold capital at a level determined by internal model
Usually have activities in several very different businesses	Will set a target for company credit rating and painstakingly work to fulfil rating agency expectations
Not interested in emerging risks; prefer more tangible issues	Calculate the exact benefits of diversification
Will try many new opportunities, but may not commit enough resources	Interested in emerging risk but not typically skilled in dealing with the level of uncertainty involved
Will experience smaller losses	May miss new opportunities while analysing; may be a fast follower. Will experience moderate losses in poor environment.
	Importance of a person in the company depends on how many people work for them

risk cultures

MAXIMIZER	CONSERVATOR
Focus on the valuation/pricing of risk, applied on a transaction by-transaction basis	Seek to restrict exposure to potential losses or risks
Insurers focus on combined ratio	Emphasize the internal audit function and other ways of controlling operational risks, careful risk underwriting and tight exposure limits
May use economic capital and a cost-of-capital approach to standardise pricing risk margins	Non-underwriting risks (e.g. interest rate and equity exposures) typically managed via asset-liability matching and hedging, often operated with a zero loss target
Establish risk limits related to the amount prices may deviate from “standard” by-the-book rates	Often emphasize stress tests to help prepare for the worst-case situation
Tend to hold the minimum capital needed to keep the lowest rating that customers/distributors will tolerate	Not highly concerned with growth; often accept below-market growth
Expect to grow significantly faster than the market; achieve high profit growth in the right environment	Spend significant resources preparing for emerging risks
Low reliance on quantitative analysis, except for pricing	Rarely take up new opportunities; may finally try a new business right at the peak, and then suffer decline of profits and growth
Tend to concentrate as much business as possible in the most profitable segments	Experience smaller losses in unfavourable environments
Not concerned about emerging risks before they emerge	Flat organization chart; tend to have many large meetings where everyone gets a say
High interest in competitors; seek to win	
Highly interested in taking up new opportunities; not a follower	
Experience larger losses in unfavourable environments	

hybrid cultures

Just as there are hybrid risk preferences, there can be hybrid Risk Cultures. Through the boom times leading up to the financial crisis, many CROs found that their role was to facilitate business, not to be the “Doctor No” of the company. They adopted a hybrid of Manager and Maximizer approaches as the ERM program.

The statistics on the insurance executives surveyed suggest that a Manager/Maximizer hybrid should fit with most management teams. However, in different times or with different management teams, Manager/Conservator or Manager/Pragmatist hybrids might be more successful. Looking at Chart 2, at least one management group (Company 4) would probably prefer the Manager/Pragmatist blend. In addition, there are situations where circumstances force management's hand, regardless of preference. One company in our study had experienced a major loss, and ran under a Conservator/Manager hybrid for five years until the firm worked its way out of the consequences of their loss – even though not a single person on the management team favoured the Conservator Risk Culture.

conclusion

Based upon the sample evidence, it seems reasonable to tentatively conclude that a "pure" ERM approach, strictly aligned with the Manager Risk Culture, is probably not going to suit most insurers' leadership. Nor will it match up with most risk management strategies currently in place.

The above discussion of risk preferences provides a starting point for thinking about Risk Culture in a way that is not simply "black/white, on/off." Almost all companies will find each of these four risk preferences within their staff, and most within their management team. To develop a successful Risk Culture for the firm, this possibility should be an important consideration.

authors

Dave Ingram

Executive Vice President at Willis Re North America in New York where he provides ERM advisory services to insurers

Michael Thompson

He is an anthropologist and senior research scholar affiliated with the risk and vulnerability programme at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria.

Alice Underwood

Executive Vice President at Willis Re North America in New York where she leads the Analytics team. The team provides actuarial analysis, rating agency advisory, natural catastrophe modelling and ERM advisory services to insurers.